# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/068,895 | 02/11/2002 | Arito Asai | ˙5-071US-FF | 3549 |

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| EXAMINER |
|---|
| TRUONG, CAM Y T |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2162 | |

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | | Application No. | Applicant(s) |
|---|---|---|---|
| **Office Action Summary** | | 10/068,895 | ASAI ET AL. |
| | | **Examiner** | **Art Unit** | |
| | | Cam Y T. Truong | 2162 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>21 December 2005</u>.

2a)☐ This action is **FINAL**.      2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1,2 and 6-14</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2 and 6-14</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>11/7/2005</u> .

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

## DETAILED ACTION

1.      Applicant's election without traverse of group I (claims 1-2, 6-14) in the reply filed

on 12/212006 is acknowledged.

Claims 1-2, 6-14 are pending in this Office Action.

### *Claim Objections*

2.      Claim 1 is objected to because of the following informalities:  The limitation "a

second search device" is not defined in the specification.  In the specification page 12,

lines 16-17, "another search unit" is defined.  Thus, the limitation "a second search

device" should be written as "a second search unit".  Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3.      The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

Claim 6 recites the limitation "said command execution unit" in page 4, line 6.

There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

4.    The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action. -
        A person shall be entitled to a patent unless -

> (b) the invention was patented or described in a printed publication in this or a foreign
> country or in public use or on sale in this country, more than one year prior to the date of
> application for patent in the United States.

5.      Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by

Hanes et al (or hereinafter "Hanes") (US 6466952).

As to claim 1, Hanes teaches a database system (fig. 1) comprising:

"a database in which data has been stored accessibly" as the local hard drive 10

14 in which files has been stored accessibly (fig. 1, col. 7, lines 35-50);

"a search device for accessing the database in accordance with an applied

search command and searching data that has been stored in said database" as search

function 36 obtains 51 a search request comprising a set of search fields can include

text, portions of bitmaps, audio format information. Search function 36 then searches

the local hard drive 10, for keys that contain the search fields. The search function 36 is

stored in program memory 6. The program memory 6 of the search function 36 is

represented as a search device (fig. 1, col. 7, lines 37-50; col. 5, lines 40-45);

"a command execution device, to which a command is entered, for

applying a search command to said search device in accordance with this

entered command" as a processor executes the search request to search function 36 in

accordance with search icon or search command. The search function 36 is

represented as a search device (figs. 1&4, col. 8, lines 36-42; col. 7, lines 37-50);

"a first interface for separably connecting, without via a network, said

search device and said command execution device" as interface 5 for separably

connecting, without via a network, the processor 4 and the search function 36 (fig. 1).

As to claim 9, Hanes teaches the claimed limitation "a command receiving

device for receiving the entered command from a client" as (fig. 4).


### Claim Rejections - 35 USC § 103

6.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
in section 102 of this title, if the differences between the subject matter sought to be patented and the
prior art are such that the subject matter as a whole would have been obvious at the time the invention
was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability
shall not be negatived by the manner in which the invention was made.


7.      Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Hanes in view of Sanada et al (or hereinafter "Sanada") (US 6484245).

As to claim 2, Hanes further teaches "a storage device for storing data readably"

as information storage devices coupled to server 63 for storing data. This data is

searched and retrieved through by searching software on server 63 (col. 6, lines 58-59).

Hanes does not explicitly teach the claimed limitation "a storage controller for

accessing said storage device and reading data that has been stored in said storage

device or writing data to said storage device in accordance with an applied read/write

command; and a second interface for separably connecting said storage controller and

said command execution device; said command execution device applying a read/write

command to said storage controller in accordance with the entered command".

Sanada teaches the above claimed limitations:

"a storage controller for accessing said storage device and reading data that has

been stored in said storage device or writing data to said storage device in accordance

with an applied read/write command" as the storage controller 40 controls accessing to

the disk array for reading data from there upon receipt of read command information

from host computer 10 (fig. 1, col. 5, lines 9-10; col. 6, lines 1-8);

"and a second interface for separably connecting said storage controller and

said command execution device" as Fibber Channel Fabric as an interface for separably

connecting the storage controller and the host computer 10. Because the host computer

10 generates an access request and then executes the access request by sending

access request to the microprocessor of the

storage controller; thus, the host computer is represented as command execution

device (fig. 1, col. 5, lines 35-37; col. 6, lines 1-3);

" said command execution device applying a read/write command to said storage

controller in accordance with the entered command" as the host computer can applies a

read command or write command to microprocessor of the storage controller. The

above information implies that the host computer has included a command to can send

a read or a write command to the microprocessor of the storage controller. This

command is represented as the entered command (col. 5, lines 45-55; col. 6, lines 1-3).

It would have been obvious to a person of an ordinary skill in the art at the time

the invention was made to apply Sanada's teaching of using storage controller to control

subsystem 50 for reading data, Fibber Channel Fabric for connecting the storage

controller and the host computer 10, and applying a read command from the host

computer 10 to the storage controller to Hanes's system in order to improve the integrity

of Hanes's system by allowing a user to access a storage device for reading or writing

stored data in the storage device and further eliminating unauthorized access attempts

from the host computers to the storage control device.


8.      Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hanes in view of Cecchini et al (or hereinafter "Cecchini") (US 6292794).

As to claim 6, Hanes teaches the claimed limitation "wherein said search device

is replaced by a second search device upon separation of said search device from said

first interface" the search function 36 is not replaced by a second search device upon

separation of said first interface (fig. 1, col. 7, lines 37-50).

Hanes does not explicitly teach the claimed limitation "said search device is

replaceable by a second search device; upon replacement of said search device by said

second search device, said first interface separably and directly connects, without via a

network, said second search device and said command execution device".  Cecchini

teaches the conventional stem search engine is replaced by the smart Stem Search

technique (col. 5, lines 5-10).

It would have been obvious to a person of an ordinary skill in the art at the time

the invention was made to apply Cecchini's teaching of the conventional stem search

engine is replaced by the smart Stem Search technique to Hanes's system in order to

provide a new pathway to enhance the unsuccessful stem search.

As to claim 7, Hanes and Cecchini teaches the claimed limitation in claim 1, Cecchini further teaches the claimed limitation "wherein said search device employs a search technique different than a search technique of said second search device". Cecchini teaches the search engine 1 employs a search technique different than a search technique of the search engine 2 (col. 5, lines 1-35). It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Cecchini's teaching of the search engine 1 employs a search technique different than a search technique of the search engine 2 to Hanes's system in order to provide a new pathway to enhance the unsuccessful stem search.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanes in view of Collby (US 6480836).

As to claim 8, Hanes discloses the claimed limitation subject matter in claim 1, except the claimed limitation "a relational database management system containing attribute information corresponding to said data, wherein said relational data management system is searchable by said search device". Collby teaches a relational database contains attributes corresponding to search request and relational database is searchable by a search engine (abstract, col. 1, lines 25-45).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Collby's teaching of a relational database contains attributes corresponding to search request and relational database is searchable by a search engine to Hanes's system in order to search/retrieve a particular field of a record in a relational database.

10.     Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanes

in view of Vora et al (or hereinafter "Vora") (US 5819273).

As to claim 10, Hanes does not explicitly "a command resending device for transmitting

the entered command to another database server". Vora teaches the user search

request is transferred to another database server (col. 6, lines 55-67).

It would have been obvious to a person of an ordinary skill in the art at the time the

invention was made to apply Vora's teaching of teaches the user search request is

transferred to another database server to Hanes's system in order to allow a user to be

able to search remote databases on a network system and further provide the most

relevance result to a user based on user's request.


11.     Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Hanes in view of Sanada et al (or hereinafter "Sanada") (US 6484245) and further

ire view of Dekoning (US 6671776).

As to claim 11, Hanes and Sanada disclose the claimed limitation subject matter

in claim 2, except the claimed limitation "wherein said storage controller is replaceable

by a second controller upon separation from said command execution device".

DeKoning teaches each **RAID** controller in the data storage system may be replaced

with PCI RAID controllers or other low end RAID controllers (col. 4, lines 17-20).

It would have been obvious to a person of an ordinary skill in the art at the time

the invention was made to apply DeKoning teaching of each RAID controller in the

data storage system may be replaced with **PCI RAID** controllers or other low end RAID

controllers to Hanes's system and Sanada's system in order to transmit or execute

command when one controller fail, a host system may still access the drive through the

remaining controller.

As to claim 12, Hanes and Sanada disclose the claimed limitation subject matter

in claim 11, except the claimed limitation "wherein said second storage controller is

different than said storage controller". DeKoning teaches each RAID controller in the

data storage system may be replaced with PCI RAID controllers or other low end RAID

controllers (col. 4, lines 17--20).

It would have been obvious to a person of an ordinary skill in the art at the time

the invention was made to apply DeKoning teaching of each RAID controller in the

data storage system may be replaced with PCI RAID controllers or other low end RAID

controllers to Hanes's system and Sanada's system in order to transmit or execute

command when one controller fail, a host system may still access the drive through the

remaining controller.

12.    Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hanes in view of Sanada et al (or hereinafter "Sanada") (US 6484245) and Lee et al (or

hereinafter "6061696).

As to claim 13, Hanes and Sanada disclose the claimed limitation subject matter

in claim 2, except the claimed limitation "an expression-format converter for generating

data having a desired expression format when it is determined that data having the

desired expression format is not stored in the database". Lee teaches the converted

format of the object can be stored as a local file apart from the file containing the native

format version which is maintained in an original file in the same or different directory.

The above information shows that the system has determined that the data having the

desired format is not stored in the database; thus, the system converts the format of

file or object and store the converted format of file into the same or different directory

(col. 3, lines 1-5).

It would have been obvious to a person of an ordinary skill in the art at the time

the invention was made to apply Lee's teaching of the converted format of the object

can be stored as a local file apart from the file containing the native format version

which is maintained in an original file in the same or different directory to Hanes and

Sanada in order to allow a user to view a data in her own system and further to store

data following database format.

As to claim 14, Hanes, Sanada and Lee disclose the claimed limitation subject in

claim 13, Hanes further teaches the claimed limitation "wherein said expression-format

converter is separably connected to said command execution device by said second

device" as (fig. 9, col. 8, lines 5-20).

### *Conclusion*

13.     The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Lepien (US 2003/0041059).

### Contact Information

14.     Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Cam Y T Truong whose telephone number is

(571) 272-4042. The examiner can normally be reached on Monday to Firday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http:/Ipairdirect.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (tollfree).

Cam Y T Truong
Examiner
Art Unit 2162
1/19/2006